

REMARKS

Claims 1 through 5 are pending in this Application. No claim is being amended. For reasons advocated *infra*, Applicants submit that the imposed rejections under 35 U.S.C. §103(a) are not factually or legally and, hence, solicit reconsideration and withdrawal thereof.

Claims 1 and 3 through 5 were rejected under 35 U.S.C. §103(a) for obviousness predicated upon Palmqvist et al. or Lindskog et al. in view of Ishii et al. or Ljungberg.

This rejection is traversed.

In the Request for reconsideration submitted August 10, 2009, Applicants argued that the mere disclosure of producing curvature is simply not a sufficient factual basis upon which to conclude that various claim limitations, in addition to the recited roughness, are inherent, i.e., necessarily present, in the alternatively applied primary references. Applicants also pointed out that the claimed insert is designed for and enjoys utility in very high-load cutting. In such rigorous applications, tool failures and heat production result from fracturing due to swarf or swarf powder. The present invention addresses and solves that problem by strategically smoothening areas other than the ridge line, specifically, areas such as the upper part of the breaker part, the bearing surface, and around the fixing hole. Thus, the claimed insert has a combination of features, including the composition of the substrate, a hard phase, a binder phase, and a film thickness, and is smoothened in particular areas. Such an insert, particularly an insert having the above-noted strategically smoothened areas, is neither disclosed nor suggested by any of the applied references. And there is absolutely no factual basis upon which to predicate the determination that the above noted features of the claimed insert are inherent, i.e., necessarily present, in the prior art.

In response to Applicants' arguments, the Examiner stated, on page 2 of the 12/08/09 Final Office Action: "[t]he applicant is correct, but the examiner is relying on the honing which does produce the claimed roughness (see JP 2003-094230) and thus the rejection stands."

To the extent that the Examiner is now relying on JP 2003-094230 (Sumitomo), the rejection is improper, because Sumitomo is not included in the statement of the rejection. *See, In re Hoch*, 428 F.2d 1053 (C.C.P.A. 1970). Hence, the imposition of a final rejection is clearly improper and should be withdrawn.

To the extent the Examiner is relying on Sumitomo to support the theory that the claim limitation on roughness is inherent, i.e. necessarily present, in the alternatively applied primary references, such reliance is completely misplaced. That honing is capable of achieving a particular roughness in a particular cutting insert (Sumitomo) does not mean that honing would readily achieve that degree of roughness in all cutting inserts (the cutting inserts of the alternatively applied primary references), or that one having ordinary skill in the art would have even considered it possible or practical to even attempt to achieve that degree of roughness in the cutting inserts of the alternatively applied primary references.

Specifically, in accordance with the present invention, a round cutting insert is formed comprising a ridge line having a nose radius of at least 1.6mm with a honed section having a surface roughness of no more than 0.2 microns. That surface roughness does not just happen merely because honing is known. Indeed, carefully controlled honing is necessary to purposefully achieve that objective. Sumitomo may disclose certain milling tools having a honed chamfer of a surface roughness no more than 0.2 microns. But Sumitomo also discloses that when the width is more than 0.5 mm or the angle of honing is more than 40 degrees, the cutting resistance becomes too great to achieve desired objectives, such as suppressing chipping. See, for example,

paragraph [0038] of Sumitomo. As one having ordinary skill in the art would have understood, this disclosure of Sumitomo **teaches away** from the claimed invention by discouraging the application of honing to cutting tools designed for high-load applications, as in the present invention.

Further, and quite significantly, in the Request for reconsideration submitted August 10, 2009, Applicants emphasized that the claim features of the claimed insert are functionally significant. For example, as shown in Test Example 2 of the disclosure, a tool in which the vicinity of the edge line is smooth, but one of the upper part of the breaker part, the bearing surface, or around the fixing hole is not smooth, cannot perform high load cutting, as can the claimed invention. Such evidence of **non-obviousness** merits consideration. *In re Soni*, 54 F.3d 746 (Fed. Cir. 1995); *In re Margolis*, 785 F.2d 1029 (Fed. Cir. 1986). Even more significantly, the Examiner did not deny that the argued evidence in the specification constitutes evidence of **non-obviousness**. In fact, the Examiner did not even comment on the objective evidence of non-obviousness in the specification. The Examiner's failure to consider such objective evidence of non-obviousness in the specification constitutes **clear legal error**. *Stratoflex Inc. v. Aeroquip Corp.*, 713 F.2d 1530 (Fed. Cir. 1983).

Based upon the foregoing, it is apparent that the Examiner did not establish a *prima facie* case of obviousness. Moreover, upon giving due consideration to the objective evidence of non-obviousness in the specification, the conclusion appears inescapable that one having ordinary skill in the art would not have found the claimed subject matter as a whole obvious within the meaning of 35 U.S.C. §103(a). *In re Piasecki*, 745 F.2d 1468 (Fed. Cir. 1984). Applicants, therefore, submit that the imposed rejection of claims 1 and 3 through 5 under 35 U.S.C. §103(a)

for obviousness predicated upon Palmqvist et al. or Lindskog et al. in view of Ishii et al. or Ljungberg. is not factually or legally viable and, hence, solicit withdrawal thereof.

Claim 2 was rejected under 35 U.S.C. §103(a) for obviousness predicated upon Palmqvist et al. or Lindskog et al. in view of Ishii et al. or Ljungberg, and in further view of Moriguchi et al., Kyocera, or Sumitomo.

This rejection is traversed. Specifically, claim 2 depends from independent claim 1. Applicants incorporate herein the arguments previously advanced in traversing the imposed rejection of claim 1 under 35 U.S.C. §103(a) for obviousness predicated upon Palmqvist et al. or Lindskog et al. in view of Ishii et al. or Ljungberg. The additional references to Moriguchi et al., Kyocera, and Sumitomo do not cure the previously argued deficiencies in the attempted combination of Palmqvist et al. or Lindskog et al. in view of Ishii et al. or Ljungberg. Accordingly, even if the applied references are combined as proposed by the Examiner, and Applicants do not agree that the requisite basis to support the asserted motivation has been established, the claimed invention would not result. *Uniroyal, Inc. v. Rudkin-Wiley Corp., supra*. Applicants, therefore, submit that the imposed rejection of claim 2 under 35 U.S.C. §103(a) for obviousness predicated upon Palmqvist et al. or Lindskog et al. in view of Ishii et al. or Ljungberg, and in further view of Moriguchi et al., Kyocera, or Sumitomo is not factually or legally viable and, hence, solicit withdrawal thereof.

Based upon the foregoing, it is apparent that the imposed rejections have been overcome, and that all pending claims are in condition for allowance. Favorable consideration is therefore solicited. If any unresolved issues remain, it is respectfully requested that the Examiner telephone the undersigned attorney at 703-519-9954 so that such issues may be resolved as expeditiously as possible.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 504213 and please credit any excess fees to such deposit account.

Respectfully Submitted,

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Date

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